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Ref. No.: 2000.019

REMARKS

I. INTRODUCTION

Claims 1-9 and 40-60 have been amended. No new matter has been added. Thus, claims 1-60 remain pending in the present application. In view of the above amendments and the following remarks, it is respectfully submitted that all of the pending claims are allowable.

II. CLAIM REJECTIONS – 35 U.S.C. § 112

Claims 1-15 and 40-60 stand rejected under 35 U.S.C. § 112, first paragraph, for failing to comply with the written description requirement. (See 8/3/07 Office Action, p. 2.) Specifically, the Examiner asserts that the limitations of “displaying an output of the software module to a user,” as recited in claims 1 and 55, and “a display to display at least an output of the software module to a user,” as recited in claim 9, are unsupported, either expressly or inherently, by the disclosure. (See *id.*, p. 3.) The Examiner further asserts that the only mention of displaying given in the original disclosure is that of displaying/printing error messages associated with a linking process. (See *id.*) In view of the amendments to claim 1, from which claims 2-8 and 40-54 depend, to claim 9, from which claims 10-15 depend, and to claim 55, from which claims 56-60 depend, it is respectfully submitted that this rejection should be withdrawn.

III. CLAIM REJECTIONS – 35 U.S.C. § 101

Claims 1-15, 40, 41 and 43-56 stand rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter. (See *id.*, p. 3, citing 5/23/07 Decision on Appeal, pp. 4, 12-31.) In view of the amendments to claim 1, from which claims 2-8, 40, 41 and 43-54 depend, to claim 9, from which claims 10-15 depend, and to claim 55, from which claim 56 depends, it is respectfully submitted that this rejection should be withdrawn.

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IV. CLAIM REJECTIONS – 35 U.S.C. § 102(b)

Claims 16-39 stand rejected under 35 U.S.C. § 102(b) as anticipated by John Levine, “Linkers and Loaders, chapter 6,” June 1999 (hereinafter “Levine”). (See 8/3/07 Office Action, pp. 4-7.)

Levine generally describes a technique used by an archive format (i.e., the “ar” command) for creating libraries. A library is handled by a program linker to resolve symbol references within a program. (See Levine, “Library formats,” p. 1.) The libraries may contain selected object files, or routines, that resolve undefined symbols, and these object files may be used by linkers and loaders in order to automate symbol resolution. (See *id.*) In addition, these collections of object files within the libraries may be created using various formats, wherein the simplest format for a library is a sequence of object modules. (See *id.*) The format of the linker libraries implemented in UNIX and Windows is an “archive” format, which may be used for collections of any types of files. (See *id.*)

For the creation of libraries, the archive formats may use a variety of techniques depending on the support provided by a given operating system. (See *id.* at “Creating libraries,” p. 5.) In order to deal with the issue of ordering the object files within a created archive library, UNIX systems contains two programs, “lorder” and “tsort,” to help in the creation process. (See *id.*) Lorder is used to produce a dependency list of the object files that reference specific symbols in other object files. (See *id.*) In other words, Lorder may provide a list of functions that are required by other functions. The creation of the list is accomplished by extracting the symbols using a symbol listing utility, text-processing the symbols, and using standard sort and join utilities to create an output. (See *id.*) Tsort performs a topological sort on the output in order to produce a sorted list of object files. (See *id.*) Each symbol may be defined after all the references to it, thereby allowing all undefined references to be resolved over a single sequential pass. (See *id.*) Therefore, an archive library may be created with the lorder and tsort programs where the output of lorder is used to control the archive library, “ar”. (See *id.*) Accordingly,

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lorder and tsort may be used to reorder the dependencies of symbols within an archive library in order to find all external references.

Applicant notes that claims 16-39 were previously rejected under 35 U.S.C. § 102(b) as unpatentable over Levine. (See 8/25/05 Office Action, pp. 6-9; 5/23/07 Decision on Appeal, pp. 4-11.) The Examiner asserts that Applicant's arguments with respect to claims 1-60 were considered but were rendered moot in view of new grounds of rejection. (See 8/3/07 Office Action, p. 2.) However, rather than providing new grounds of rejection, the Examiner again rejected claims 16-39 under 35 U.S.C. § 102(b) as unpatentable over Levine. Therefore, Applicant revisits the same arguments regarding this ground of rejection.

Claim 16 recites "[a] method, comprising: receiving a software module sequentially, the software module having at least one symbol reference; *locating a section header table of the software module*; linking the software module onto a target memory space; and *resolving the at least one symbol reference, using the section header table, without storing the entire software module in local memory while the symbol reference is resolved.*"

Applicant respectfully submits that Levine does not disclose "locating a section header table of the software module," as recited in claim 16. Further, Applicant respectfully submits that Levine does not disclose "resolving the at least one symbol reference, using the section header table, without storing the entire software module in local memory while the symbol reference is resolved," as recited in claim 16. The cited portions of Levine make no reference to the amount of the software module stored in local memory; in fact, the only mention of memory contained in Levine suggests that a reasonable approach to writing a librarian for creating a library of object files would involve "buffering the entire file in main memory." (See Levine at "Project 6.3," p. 11.) Accordingly, the rejection of claim 16 should be withdrawn. Because claims 17-22 depend from, and, therefore, include all of the limitations of claim 16, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

Claim 23 recites "A system, comprising: a linker configured to sequentially receive a software module having at least one symbol reference, the linker configured to locate a section header table of the software module, the linker configured to resolve the symbol reference using

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at least the section header table, the linker configured to store less than the entire software module in local memory during the resolution of the at least one symbol reference.” It is respectfully submitted that Levine does not disclose every element of claim 23, as amended, for the reasons discussed above with reference to claim 16. Accordingly, the rejection of claim 23 should be withdrawn. Because claims 24-35 depend from, and, therefore, include all of the limitations of claim 23, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

Claim 36 recites “[a] computer readable storage medium including a set of instructions representing a software module that is executable by a processor, the set of instructions operable to: receive a software module sequentially, the software module having at least one symbol reference; locate a section header table of the software module; link the software module onto a target memory space; and resolve the at least one symbol reference, using at least the section header table, without storing the entire software module in local memory while the symbol reference is resolved.” It is respectfully submitted that Levine does not disclose every element of claim 36, as amended, for the reasons discussed above with reference to claim 16. Accordingly, the rejection of claim 36 should be withdrawn. Because claim 37 depends from, and, therefore, includes all of the limitations of claim 36, it is respectfully submitted that this claim is also allowable for at least the reasons stated above.

Claim 38 recites “[a]n article of manufacture comprising a computer-readable medium having stored thereon instructions adapted to be executed by a processor, the instructions which, when executed, define a series of steps to be used to reorder a software module, said steps comprising: receiving a software module, the software module including references to locations within the software module, at least some of the references being backward references; and reordering the components of the software module into a predetermined order to remove at least some of the backward references, wherein the components include at least one of a header, a section, and a table.” It is respectfully submitted that Levine does not disclose every element of claim 38, as amended, for the reasons discussed above with reference to claim 16. Accordingly, the rejection of claim 38 should be withdrawn.

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Claim 39 recites “[a]n article of manufacture comprising a computer-readable medium having stored thereon instructions adapted to be executed by a processor, the instructions which, when executed, define a series of steps to be used to control the linking of a software module, said steps comprising: receiving a software module sequentially, the software module having at least one symbol reference; locating a section header table of the software module; linking the software module onto a target memory space; and resolving the at least one symbol reference, using at least the section header table, without storing the entire software module in local memory at one time.” It is respectfully submitted that Levine does not disclose every element of claim 39, as amended, for the reasons discussed above with reference to claim 16. Accordingly, the rejection of claim 39 should be withdrawn.

V. CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 1-15, 40, 41 and 43-60 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Levine in view of “Unix man pages : ar (),” 1991, Free Software Foundation, Inc. (hereinafter “man_ar”). (See 8/3/07 Office Action, pp. 8-13.)

As amended, independent claim 1 recites “[a] computer readable storage medium including a set of instructions executable by a processor, the set of instructions operable to: receive a software module, the software module including references to locations within the software module, at least some of the references being backward references; and reorder components of the software module into a predetermined order to remove at least some of the backward references, wherein the components include at least one of a header, a section, and a table.”

Applicant respectfully submits that Levine does not disclose “instructions operable to... reorder components of the software module into a predetermined order,” as recited in claim 1. Further, Applicant respectfully submits that Levine does not disclose “wherein the components include at least one of a header, a section, and a table,” as recited in claim 1. man_ar merely provides instructions for the use of the UNIX “ar” command, without any reference to its use in

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any manner comparable to the recitation of claim 1. The Examiner cites man_ar solely to address a limitation of claim 1 that was removed in the above amendment; man_ar does not cure the above stated deficiencies of Levine with regards to the limitations of claim 1. Accordingly, the rejection of claim 1 should be withdrawn. Because claims 2-8 and 40-41 and 43-54 depend from, and, therefore, include all of the limitations of claim 1, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

As amended, independent claim 9 recites "[a] system, comprising: a memory storing a reorder module configured to receive a software module including references to locations within the software module, at least some of the references being backward references, the reorder module configured to reorder components of the software module into a predetermined order and remove at least some of the backward references, the components including at least one of at least one of a header, a section, and a table; and a processor executing the reorder module."

Applicant respectfully submits that Levine does not disclose every element of claim 9, as amended, for the reasons discussed above with reference to claim 1. Accordingly, the rejection of claim 9 should be withdrawn. Because claims 10-15 depend from, and, therefore, include all of the limitations of claim 9, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

As amended, independent claim 55 recites "[a] computer readable storage medium including a set of instructions executable by a processor, the set of instructions operable to: receive a software module, the software module including components arranged in a first order, a first one of the components including a reference to a location in a second one of the components, the second one of the components preceding the first one of the components in the first order; and arrange the components into a predetermined second order so that the second one of the components is subsequent to the first one of the components in the second order, wherein the components include at least one of a header, a section, and a table."

Applicant respectfully submits that Levine does not disclose every element of claim 55, as amended, for the reasons discussed above with reference to claim 1. Accordingly, the rejection of claim 55 should be withdrawn. Because claims 56-60 depend from, and, therefore,

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include all of the limitations of claim 55, it is respectfully submitted that these claims are also allowable for at least the reasons stated above.

Claim 42 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Levine and man_ar as applied to claim 1, and further in view of U.S. Patent 6,185,733 to Breslau et al. (See 8/3/07 Office Action, p. 13.)

Breslau describes a library search process within a computer linkage program. (See Breslau, col. 1, ll. 15-17.) The linkage editor performs the editing on the linkage editor statements and the object modules to be linked. (See id., col. 3, ll. 50-55.) The object modules to be linked may reside in a remote object module or search library or remote system. (See id., col. 4, ll. 11-20.)

Applicant respectfully submits that Breslau does not cure the deficiencies of Levine and man_ar discussed above with reference to claim 1. Therefore, Levine, man_ar and Breslau, alone or in combination, neither disclose nor suggest every element of claim 1. Accordingly, Applicant respectfully submits that the rejection of claim 42, which depends from claim 1, should be withdrawn.

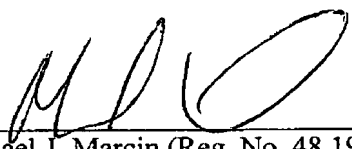
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CONCLUSION

It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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